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November 1, 2019

VIA ELECTRONIC FILING
The Honorable Jocelyn G. Boyd
Chief Clerk/Administrator
Public Service Commission of South Carolina
101 Executive Center Drive, Suite 100
Columbia SC 29210

Re: Petition of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC for Approval of CPRE Queue Number Proposal, Limited Waiver of Generator Interconnection Procedures, and Request for Expedited Review – Third Quarter 2019 Generator Interconnection Report
Docket Number: 2018-202-E

Dear Ms. Boyd:

Pursuant to Order No. 2018-803(A) issued in the above-referenced docket, please find attached for filing the third quarter 2019 Generator Interconnection Report of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC.

Sincerely,

Rebecca J. Dulin

Enclosure

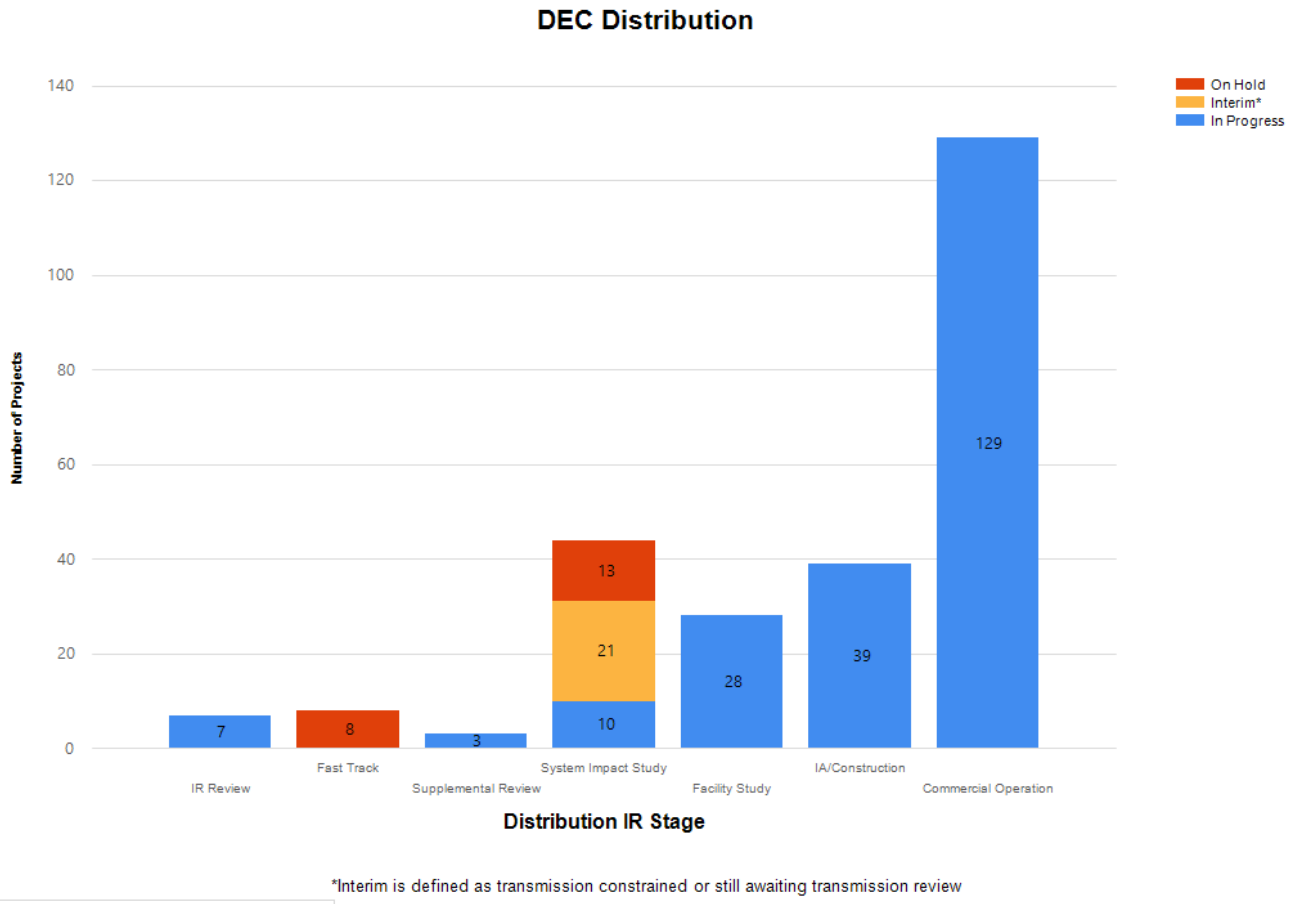
cc: Parties of record (via email)

Duke Energy Carolinas, LLC and Duke Energy Progress, LLC
Generator Interconnection Report Pursuant to Order No. 2018-803(A)
Docket No. 2018-202-E
October 31, 2019

I. Status of the Companies' Queues

Figures 1 through 4 below illustrate a summary of the status as of September 30, 2019 of all Interconnection Requests ("IRs") 20kW and greater that are in operation or currently active in the Companies' South Carolina state-jurisdictional interconnection queues, at both the transmission and distribution level for each utility.

Figure 1



*Interim is defined as transmission constrained or still awaiting transmission review

Figure 2

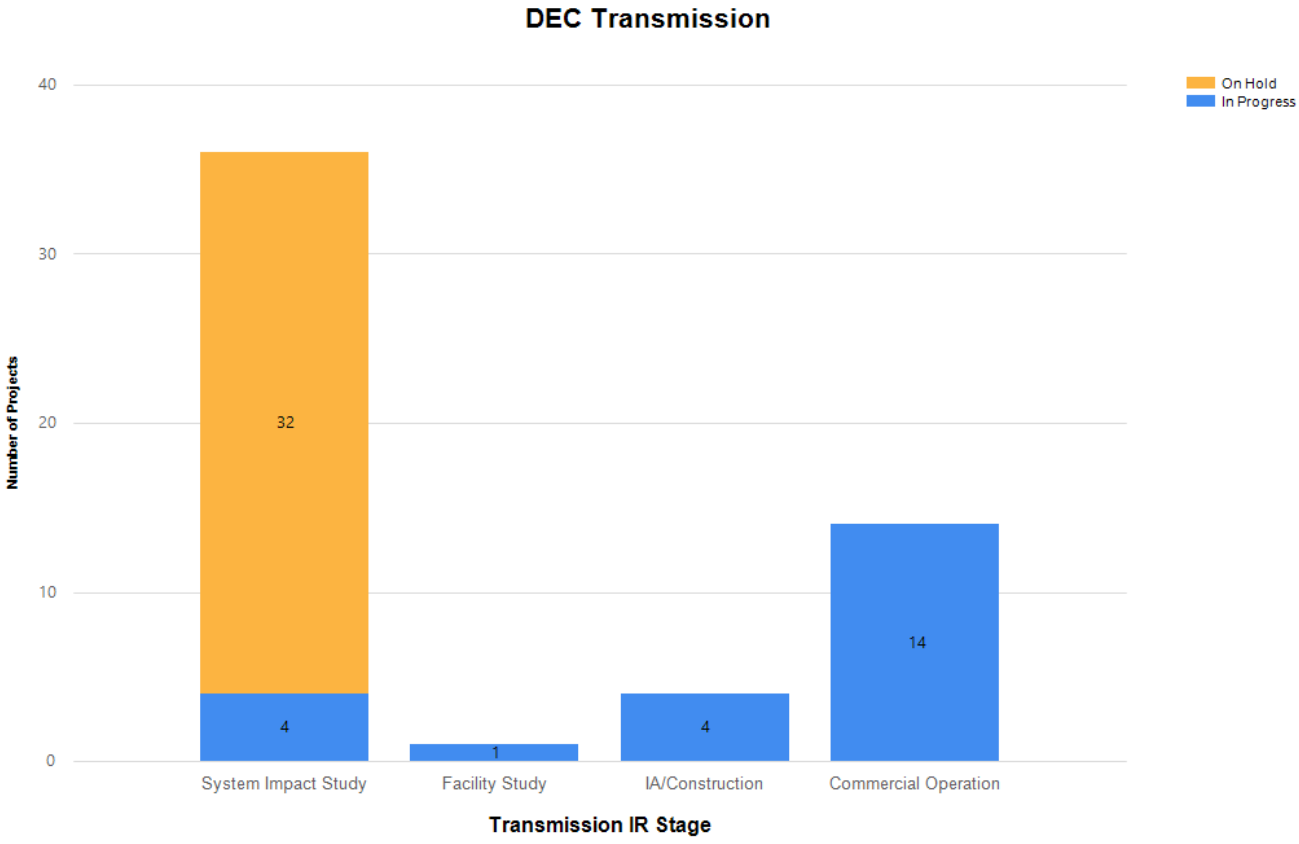


Figure 3

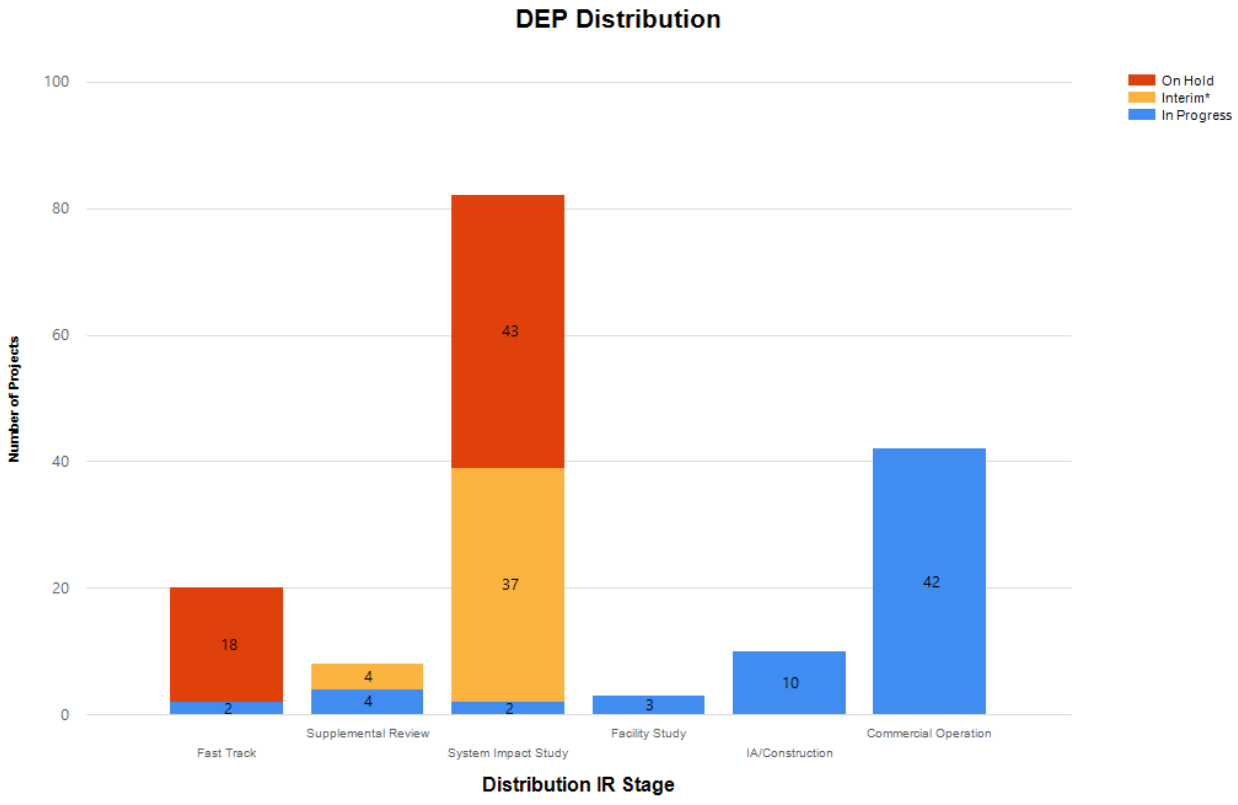


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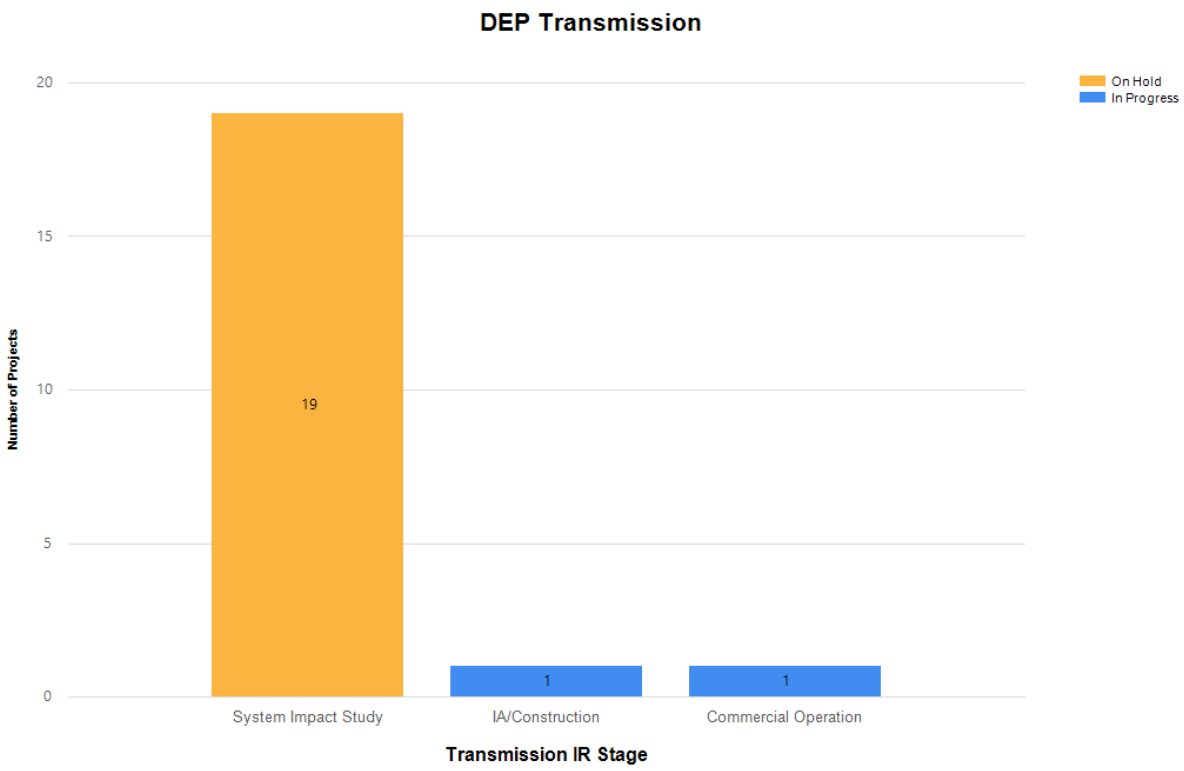
Figure 4



IR Review: This term means an IR has been submitted by the customer and is in the process of being reviewed for completeness.

Fast Track: This term means that the IR is eligible for the Fast Track study process (SCGIP Section 2) and the utility is performing the Fast Track screens. (Note: Figures 2 and 4 do not measure Fast Track because projects greater than 2MW are not eligible for consideration for Fast Track)

Supplemental Review: This term means that the IR failed the Fast Track screens review and the utility is performing a Supplemental Review (SCGIP Section 3).

System Impact Study: This term means the utility is performing a System Impact Study (SCGIP Section 4).

Facility Study: This term means the utility has completed the System Impact Study and is performing a Facility Study (SCGIP Section 4).

IA/Construction: This term means the IR has completed all study phases.

Commercial Operation: This term means the project has completed construction and is operational.

II. Reasons for the SC Interconnection Queue Challenges

The reasons for the Companies' SC interconnection queue challenges remain the same as those described in the April 30, 2019 report.

III. The Companies' Plans to Remedy the Queue Challenges

The Companies' plans to remedy their queue challenges remain the same as reported in the Aug 1, 2019 report, with the following updates:

- The Technical Standards Review Group convened on September 17, 2019.[1] In this meeting, EPRI presented findings and recommendations resulting from their review of the Section 3 Optional Fast Track Process for Certified Generating Facilities. EPRI provided recommendations that may allow more projects to proceed through fast track screening. DEC and DEP are evaluating how these recommendations can be implemented in a safe and reliable manner.
- On October 15, 2019, the Companies filed a queue reform proposal with the North Carolina Utilities Commission in response to the North Carolina Utilities Commission's August 27, 2019 *Order Requiring Queue Reform Proposal and Comments*.[2] The proposal underscores the importance of aligning the NC, SC, and FERC interconnection procedures in the Carolinas service territories. The filing details the extensive stakeholder engagement process that has been undertaken and which will continue in an effort to achieve consensus to the greatest extent possible.

IV. Indicate Which Projects Have Been Bid into CPRE (including which projects were selected as CPRE winners and which projects bid into CPRE but were not selected)

RESPONSE: Please see the August 1, 2019 report filed in this docket that includes the CPRE Tranche 1 winners and projects that were not selected.

[1] Information on this meeting was filed in Docket No. 2018-202-E on October 10, 2019.
[2] *DEP and DEC Queue Reform Update*, NCUC Docket No. E-100 Sub 101 (Oct. 15, 2019).

V. Identify the Intervals for Every Significant Milestone for Every Queued Ahead Non-CPRE Project (if requested by the Office of Regulatory Staff)

RESPONSE**:** The Companies have provided below statistics on the significant milestones for all Non-CPRE projects greater than 20kW in the Companies' interconnection queues:

a. Intervals between receipt of the Interconnection Request and execution of Interconnection Agreement.

	Overall	Distribution	Transmission
MIN	64	64	64
MAX	1332	1332	1120
AVG	384	380	478
Projects Included	214	205	9

b. Intervals for receipt of System Impact Studies Agreements and System Impact Studies completed. Note: Duke Energy's DataMart system does not capture date of receipt of the executed System Impact Study Agreement. Instead, the Companies have provided SIS Start to SIS End interval.

	Overall	Distribution	Transmission
MIN	2	62	2
MAX	1192	1192	687
AVG	400	414	149
Projects Included	95	90	5

c. Intervals for receipt of Facilities Studies Agreements and Facilities Studies completed. Note: Duke Energy's DataMart does not capture date of receipt of the executed Facilities Study Agreement. Instead, the Companies have provided Facilities Study Start to Facilities Study End interval.

	Overall	Distribution	Transmission
MIN	1	1	80
MAX	446	446	80
AVG	136	136	80
Projects Included	28	27	1

d. Intervals between studies completed and the Interconnection Agreement received. Note: The Companies have interpreted this request to intend the interval from Facility Study Complete to when the IA was delivered to the customer.

	Overall	Distribution	Transmission
MIN	0	0	231
MAX	317	317	231
AVG	42	42	231
Projects Included	22	21	1

VI. Provide Aggregate Statistics on CPRE and Non-CPRE Projects, including:

a. The actual allocation of FTEs and person-hours devoted to the processing of CPRE and non-CPRE projects (for the transmission and distribution queues), including on a per-project and per-megawatt basis;

RESPONSE: The CPRE Tranche 1 procurement and study teams devoted nearly 8,000 person-hours to administering the procurement process and studying the distribution and transmission projects that chose to participate in CPRE Tranche 1. The work was mainly performed by incremental third-party resources from The Accion Group, ABB Inc., and Pike Engineering LLC. The Companies provided administrative support, hosting services for the stakeholder process, and engineering review. The Accion Group administered the procurement and the System Impact Grouping Study. Protection and stability studies were performed by ABB Inc. for 8 non-late stage winning transmission projects, two of which were located in South Carolina. Pike Engineering LLC allocated two engineers to support CPRE distribution project studies, ultimately studying 6 projects, two of which were located in South Carolina.

Overall, 62 non-late stage projects (2,963 MW) were evaluated, utilizing resources of approximately 129 person-hours per project and 2.69 hours per megawatt. Only 32 projects and 1,740 MW were selected to move to the Competitive Tier Evaluation and received System Impact Study Reports. For those Competitive Tier projects, approximately 121 person-hours per project were expended, approximating 2.2 person-hours per megawatt.

In the CPRE Tranche 1 timeframe, 37 DEC and DEP planners completed 132 non-CPRE System Impact Studies, for both North and South Carolina. An additional 101 projects received interim reports containing the distribution portion of their System Impact Study. 113 projects received a System Impact Study Agreement but chose to withdraw before receiving a completed System Impact

Study Report. Approximately 159 person-hours per project were expended, approximating 15.44 person-hours per megawatt.

The Companies emphasize that no valid conclusions can be drawn by comparing the number of person-hours expended on a particular project as compared with another project. Each project has its individual challenges, and the extent to which resources are expended in evaluating the project more likely speaks to the complexity of the project than any supposed deduction of discriminatory or favorable treatment.

b. Information on Interconnection Study Intervals for System Impact Studies and Facilities Studies for CPRE versus non-CPRE projects;

RESPONSE: During the CPRE Tranche 1 timeframe, Duke completed 33 System Impact Studies for SC Projects. Of those 33 projects, two projects were announced as CPRE winners and received a completed System Impact Study Report through the CPRE process. The third South Carolina project with a winning bid was a late stage distribution-connected project that received a System Impact Study Report in 2017. While Section V above provides statistics on the significant milestones for all non-CPRE projects greater than 20 kW in the Companies' interconnection queues, the Companies have attempted to provide more granular information in this subsection, where such information is available. The average days for the 31 non-CPRE projects receiving a System Impact Study Report in the CPRE Tranche 1 timeframe was 475 calendar days.[3,4] The CPRE Tranche 1 procurement window was 290 days. It is not surprising that CPRE Tranche 1 projects progressed through the System Impact Study process more quickly than non-CPRE projects; indeed, such outcome was the objective of the study process developed for the evaluation of CPRE projects, and was represented as such to the Commission in the Companies' Petition for Waiver of the Interconnection Procedures filed in this docket on June 19, 2018.[5] Moreover, the study timeframe for non-CPRE projects was not impacted by the existence of the CPRE Program.

The SC CPRE winners that proceeded to Section 4.4 Facilities Study during the CPRE Tranche 1 timeframe were transmission-connected projects. Those

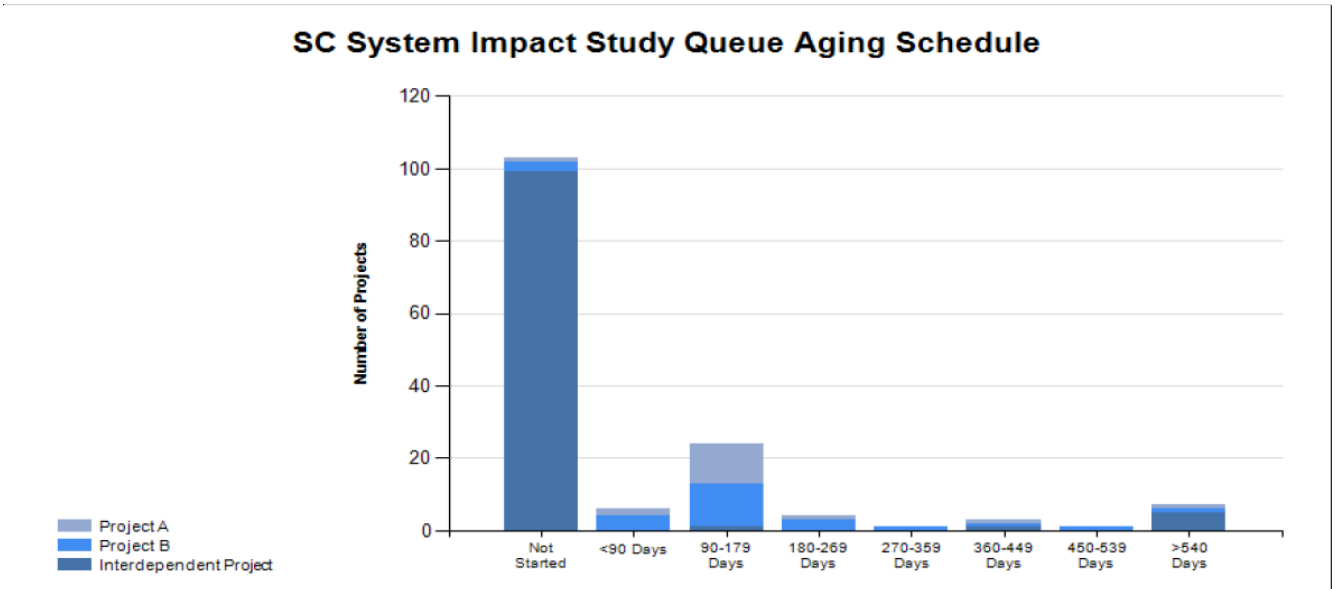
[3] The Companies note that the calculation of time does not account for interruptions in the interconnection process during which the Companies were waiting on responses from the Interconnection Customer.
[4] All references to "days" in this subsection mean "calendar days."
[5] *Petition of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC for Approval of CPRE Queue Number Proposal and Limited Waivers of Generator Interconnection Procedures and Request for Expedited Review*, Docket No. 2018-202-E (June 19, 2018).

projects completed Facilities Study in 47 days and 61 days each. During the CPRE Tranche 1 timeframe, one non-CPRE transmission project completed Facilities Study, and such study was completed in 13 days. See Section V(c) above for information on non-CPRE distribution Facilities Study intervals.

For SC CPRE winning projects, on average, 57 days elapsed from the time period of completion of Facilities Study until the IA was delivered. For non-CPRE projects, 13 projects received an Interconnection Agreement during the CPRE Tranche 1 timeframe. The average time elapsing from the time of completion of Facilities Study until the IA was delivered is 71 days.

c. Information on Interconnection Study Backlogs for CPRE versus non-CPRE projects; and

RESPONSE: As reported in its August 1, 2019 report in this docket, the interconnection study backlog is not negatively impacted by the existence of the Grouping Studies conducted for CPRE. With regard to the "study backlog" for CPRE projects, no such "backlog" exists, as these projects are not studied under the Section 4 SCGIP process, but instead pursuant to the CPRE evaluation process pursuant to the waiver granted in this docket. Please see Figure 5 below, which illustrates the current state of the Companies' interconnection queues.



Project Interdependency	Not Started	<90 Days	90-179 Days	180-269 Days	270-359 Days	360-449 Days	450-539 Days	>540 Days
Project A	1	2	11	1	-	1	-	1
Project B	3	4	12	3	1	1	1	1
Interdependent Project	99	-	1	-	-	1	-	5

The aging schedule is intended to illustrate the current backlog of projects waiting to begin the study process (designated by "Not Started") or currently being studied. Projects that have completed the study process have been moved off the aging schedule.

d. The number of CPRE versus non-CPRE projects that achieved each significant interconnection milestone (i.e. system impact study complete, facilities study complete, IA signed, interconnection achieved) during the reporting period.

RESPONSE:

See response to Section VI(b) above.